Vol. Number 5, Issue Number 2 U.S. EPA, Region 4, Atlanta, GA November 2003

ALPHABET SOUP

Editor: Lora Lee Schroeder, EPA Environmental Protection Specialist
Guest Editor: Stephanie Thornton, EPA Intern

FQPA, FIFRA , 2(ee), 24(c), S18, 25(b), CARAT, SAP, PDP, ETC.

An EPA Region 4 (AL, FL, GA, KY, MS, NC, SC, TN) information update to inform regulators, organizations, and the interested public about The Food Quality Protection Act (FQPA), sustainable agriculture projects, pesticide registration and re-registration decisions, pesticide policy and Regional enforcement updates.

PESP Grant Provides IPM Education for School Children

By Stephanie Thornton, Intern, EPA Region 4

Homeowners may use up to 10 times more pesticides per acre than farmers. With the increasing rate of development, residential pesticide usage poses a significant threat to both the environment and public health. The need for pesticides can be reduced by adopting an integrated pest management (IPM) approach, but most adults are not familiar with IPM concepts.

Since children are more likely to be receptive to IPM concepts and will likely adopt these methods as adults, project coordinator Geoff Zehnder used his Pesticide Environmental Stewardship Program (PESP) grant to educate 4th, 5th, and 6th graders with a program called *Explore the IPM House.* The program was presented to children who participated in the "Teaching Kids About The Environment" (Teaching KATE) session at the Camp Long 4-H Leadership Center in Aiken, South Carolina. To introduce children to IPM, the program uses a discovery-based learning curriculum, along with a model IPM house designed by Scott Mead, a Clemson University architecture graduate student.

Prior to the session at Camp Long, *Explore the IPM House* coordinators provided training for camp instructors, who were recent college graduates with backgrounds in biological sciences and knowledge of insect biology. *Explore the IPM House* was taught during the fall and winter semesters of the 2002-2003 school year at Camp Long, with 120 students participating in the program. Through pre- and post-testing, coordinators demonstrated a significant increase in the students' knowledge of IPM concepts.

An introductory session utilized picture poster boards and child-friendly "info packets", along with a "Bug Survivor" relay game to provide the children with the basic concepts of IPM and an introduction to the biology and habits of common household insect pests. "Bug Survivor" taught the children the survival needs of household pests, such as food, moisture, and shelter. The children were divided into four groups (ants, cockroaches, flies, termites) and instructed to find food, moisture, and shelter appropriate for each insect. The team collecting the most survival points in the allotted time won.

The model IPM house was created to incorporate design and construction flaws to enhance learning. It was also designed to separate into two halves to facilitate viewing of the rooms and internal construction components. The house was placed on a low table so the children could view it easily from the top and sides. To enhance the students' learning experience, they were asked to view the house as pests, placing colored stickers where they could locate food, moisture, and shelter.

Cooperative efforts between Clemson University and area schools have allowed the IPM House curriculum to continue., It will ultimately be presented to many more students as part of a new effort to integrate IPM into science, math, and English core curricula. Forest Acres Elementary in Easley, SC is one of these schools. Teacher Jerry Roberson explains, "At Forest Acres we try to protect our environment. We have planted many trees, we recycle, we compost our food waste, and we grow our own plants in our greenhouse. Now we are excited about learning how to live with limited numbers of pests and how to control these in a safe way. We have

found that children are very receptive to helping the environment and are excellent teachers of adults in their homes and neighborhoods."

For more information on *Explore the IPM House*, see http://www.clemson.edu/ipm/schoolipm_ipmhouse.htm.
IPM resources for teachers, including lesson planning, can be found at http://www.clemson.edu/ipm/schoolipm_ipmhousemanual.htm.

16 Organizations Recognized for Significant Progress in Reducing Pesticides Risk

EPA's Pesticide Environmental Stewardship Program (PESP) has selected 16 members of the program as "PESP Champions" of 2003 for their extraordinary level of commitment to protecting the environment and human health. PESP is a voluntary partnership with pesticide users to implement pollution prevention strategies. The champions were selected based on their outstanding efforts promoting integrated pest management (IPM) and advancing pollution prevention. The groups employed the following strategies to reduce the health and environmental risks associated with pesticide use: sampling to accurately determine pest population levels; training and demonstrating IPM practices; employing cultural practices such as crop rotation or removing food and habitat for structural pests; controlling or managing pests through biologically-based technologies; applying less toxic or reduced-risk pesticides such as insect growth regulators; and using conventional pesticides only when absolutely necessary. The 16 members designated as PESP Champions of 2003 are: American Mosquito Control Association, Audubon International Cooperative Sanctuary Program, California Tomato Commission, California Almond Board, Gerber Products Company, Glades Crop Care Inc., Lodi-Woodbridge Wine Grape Commission, Low Input Viticulture and Ecology of Oregon, Maryland Department of Agriculture, Massey Services Inc., Michigan Asparagus Research Inc., Monroe County School Corp., Pebble Beach Company, U.S. Department of Defense, University of Wisconsin's Center for Integrated Agricultural Systems and Walnut Marketing Board. Established in 1994 with 16 charter partners, today there are over 130 PESP members nationwide. For more information on EPA's Pesticide Environmental Stewardship Program, go to: http://www.epa.gov/oppbppd1/PESP/.

Strategic Agricultural Initiative (SAI) Grant Nets Big Gain for Southern Sweet Potatoes Growers

By Lora Lee Schroeder

North Carolina State University was awarded $2M by the United States Department of Agriculture (USDA) for sweet potato research, one of two national awards made by the USDA Risk Avoidance and Mitigation Program (RAMP). The award was a direct result of a series of workshops funded by EPA with an SAI grant of $49K which brought together sweet potato researchers and growers to identify and prioritize needs. The goal of the workshops was to develop a collaborative multi-stakeholder strategic initiative for innovation integrated pest management research and education.

Sweet potatoes are the number one selling vegetable by Gerber Product Company, the nation's largest baby food manufacturer. Reducing pesticide risks to infants is a top priority for the EPA. Sweet potato production is an important agricultural business in the Southeast.

Chinese Delegation Visits Region 4

By Stephanie Thornton

A delegation of Chinese officials visited Region 4 on September 11 & 12, 2003 to study U.S. regulation of Persistent Organic Pollutants (POPs). In accordance with the Stockholm Convention, the Chinese are attempting to find ways to eliminate or restrict the production, use, and release of these chemicals. Before arriving in Region 4, they had also visited Headquarters (Washington, D.C.) and Research Triangle Park (Raleigh, NC), and were scheduled to visit Region 1 offices (Boston) after departing Atlanta.

While at Region 4, the delegation visited many sites and studied a variety of issues. They began day 1 of their visit with a trip to University of Georgia's Griffin campus to address their concerns regarding termite control. Dr. Daniel Suiter discussed termite control alternatives that do not involve the use of POPs chemicals, including construction methods that discourage termite infestation.

Next they visited Southface, an organization that promotes practical ways to save energy and preserve the environment. Southface has earned recognition from government, industry, and community organizations for their community programs and outreach efforts to homeowners and building professionals.

Officials at the Agency for Toxic Substances and Disease Registry (ATSDR) explained how the federal government works to prevent exposure and adverse health effects from pollution in the environment. ATSDR's programs include surveillance, registries, health studies, environmental health education, and applied substance-specific research. Through these programs, and by working with other federal, state, and local

government agencies, ATSDR works to protect public health.

On day two, the delegation traveled to Tucker, GA to tour Clean Harbors-PPM, a commercial PCB storage and disposal facility. Craig Brown of EPA's Toxic Substances Section, Region 4, provided an overview of EPA's PCB disposal permitting process, while Bob Germon, facility manager for Clean Harbors, explained the chemical dechlorination process for destroying PCBs.

Lastly, they visited Georgia Tech's Plasma Arc research facility, where Dr. Louis Cerceo gave a presentation on plasma arc technology and its application in hazardous and non-hazardous waste disposal and treatment. Georgia Tech staff then demonstrated their research in a simulation of in-situ treatment of contaminated soil.

Members of the Chinese delegation were: Dr. Zhang Quingfeng (State Environmental Protection Administration of China), Ms. Ding Qiong (State Environmental Protection Administration of China), Mr. Zhang Yong (Ministry of Health), Dr. Shao Chunyan (Shenyang Institute of Environmental Sciences), Mr. Shi Yong (Ministry of Construction), and Mr. Lu Chenggang (China National Chemical Construction Cooperation Co., Ltd.).

Participating EPA Region 4 Employees were: Jim Wang, Office of Program Management, Craig Brown, Air Pesticides and Toxics Management Division (APTMD), Phillip Beard (APTMD), Stephanie Thornton (APTMD), and Neeta Bijoor (APTMD).

Pesticide Inspector Residential Training (PIRT) Held in Asheville, NC

By Stephanie Thornton

PIRT training was held September 6-10 in Asheville, NC. The training was co-sponsored by EPA and the North Carolina Department of Agriculture and Consumer Services. Course participants included inspectors from most of the 50 states and Guam. They received information on inspection procedures, interviewing techniques and bilingual interviews, herbicide injury, pesticide exposure, sampling protocol, and electronic tools for inspections and reporting. The Asheville PIRT put particular emphasis on Worker Protection Standards and inspectors received hands-on training through four mock inspections. Representatives from EPA's Office of Enforcement and Compliance Assurance and Office of Pesticide Programs were in attendance to answer questions and take comments from participants.

Pesticide Environmental Stewardship Program (PESP) and SAI Grants Awarded

Strategic Agriculture Initiative (SAI) Grant Review Panel Selects Proposals for Funding

Fifteen proposals were evaluated by the SAI grant review panel received in response to the request for proposals issued on April 7, 2003. The following proposals were recommended for funding:

Demonstration of Refined Treatment Thresholds for Sucking Bugs in Advanced B.T. Varieties to Reduce Insecticide Use in Cotton, $96,944, Submitted by Clemson University

Reducing Pesticide Use in Fruit and Vegetable Production in Georgia, $64,527, Submitted by Georgia Organics (Note: this is a continuing and expanded project)

Development and Promotion of a Management Program for the Grape Root Borer, $91,320, Submitted by the University of Tennessee

Multi-State Strawberry IPM On-farm research and Implementation, $100,000, Submitted by the University of Florida, Gainesville, in cooperation with Clemson University, South Carolina.

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PESP Grant Awarded for School IPM

By Dr. Troy Pierce, Environmental Protection Specialist, EPA Region 4

This year's PESP grant competition was very challenging. Most of the grant proposals were of high quality with only a small margin separating each grant in the scoring. The PESP grant was awarded to Dr. Fudd Graham of Auburn University and Joe Debrow of the Alabama Department of Agriculture & Industries. The project is titled "Strategic Implementation of IPM in Schools Utilizing a Statewide Coalition." Dr. Graham and Mr. Debrow will be using "The Monroe IPM Model" which has been successful in several schools. The Monroe IPM Model has resulted in an average 90 percent reduction in pesticide use with a corresponding decrease in pests. The Model is "dependent on an educational approach, which creates an awareness of all school occupants that monitoring, sanitation and exclusion strategies represent a proactive management strategy versus the more reactive strategy of chemical pesticide treatment." Alabama's PESP grant will target lower income schools and emphasize the partnership between pesticide control managers and the business side of school systems. Before and after pesticide audits and pest log books will be used. Success will be gauged using the IPM Certification Guidelines of the IPM Institute of North America.

A Sticky Situation: IPM for Beekeepers

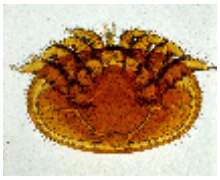
By Christine Cairns, Life Scientist, EPA Region 4

The honeybee is generally agreed to be the most important pollinator species for agriculture in North America. Without insect pollinators like honeybees, we would have no watermelon in summer, no tomato on our hamburgers, no orange juice with breakfast, no cherries on our ice cream, no strawberries, apples, pears, coconuts, almonds, lemons, limes, kiwi, mangos, avocados, grapefruits, plums...well, you get the idea. It is estimated that one third of the foods we eat require the pollination of an insect. We are therefore indebted to insects, and especially honeybees, for every third bite of food that we take.

Beekeepers in the United States not only produce honey and other bee products for the market, but also contract with farmers to provide pollination services for various crops by introducing their beehives into the agricultural landscape during the flowering season. Many minor use crop (fruit and vegetable) farmers become beekeepers themselves in order to reap the pollination benefits of having bees. However, the beekeeping industry has suffered recently under the plague of a parasitic mite called Varroa. The tiny mites infest the thorax region of bees in the larval stage. The infested larvae may mature to adulthood, but will be deformed and unable to work. This can cripple a hives' productivity and lead to hive deterioration. It is believed that the Varroa has deeply affected wild populations of honeybees in the United States almost to the point of exclusion and caused commercially kept honeybee colonies to suffer greatly, especially if they are poorly managed. The impact of the Varroa has thus caused some minor use crop farmers to see decreases in yields of their crops. Beekeepers have been forced to resort to pesticides in order to control the Varroa populations, however most of the pesticides used (fluvalinates and/or organophosphates) also contaminate the honey. There is a strong need, therefore, for alternative methods which effectively control populations of Varroa without contamination of bee products. EPA Region 4 Pesticides Section awarded a Strategic Agricultural Initiative Grant last year to the University of Tennessee Department of Entomology and Plant Pathology Agricultural Extension Service to help develop and disseminate integrated pest management programs to reduce chemical pesticide use among beekeepers in Tennessee. The project intends to introduce genetically resistant queen bees into colonies. It will also use a botanically-based pesticide with thymol as the active ingredient (extracted from the herb thyme) as well as an open-screened bottom board to prevent fallen mites from re-entering the hive. The combination of these three tactics is thought to achieve 90% or greater control of Varroa. The project intends to do demonstrations with selected beekeepers and produce educational materials for distribution among beekeepers across the state.

Currently, according to Dr. James P. Parkman, the project coordinator from the University of Tennessee, 10 beekeepers from the Tennessee Beekeepers Association (TBA) are participating in the demonstrations. Each beekeeper has been provided with genetically resistant queens and open-screened bottom boards for 10 of their colonies, while 10 colonies with non-resistant queens are managed traditionally as a control. Although preliminary results with genetically resistant queens have been somewhat disappointing, Dr. Parkman is optimistic that the quality of commercially-available resistant queens will improve as research continues. A recent questionnaire distributed to the members of TBA showed that more beekeepers are adopting non-chemical methods of Varroa control, which is a definite indicator that research and education related to honeybee IPM is going to be in demand. Given the importance of bees to agriculture in general, the success of projects like these could be very important for the future of both beekeepers and minor use crop farmers in the United States.

UT personnel requeening with resistant queen bees.



Varroa Mite
Photo by
Trevor Collins

Enforcement and Compliance Updates

Quail Plantations Fined for Pesticide Misuse

A "global" Consent Agreement and Final Order (CAFO) involving seven quail plantations in South Georgia was filed with the Regional Hearing Clerk on November 21, 2003. Under the terms of the settlement, KP, LLC (Kolomoki Plantation) and John Ray Stout will pay $100,000; Albemarle Plantation and Richard Roger Thomas will pay $40,000. The remaining $195,000 of the $335,000 penalty, will be paid collectively by Nochaway Plantation and John L. Simms, Pinebloom Plantation, Ecila Plantation and Wiley Jordan, J.W. Willis Property, and Pineland Plantation. A separate CAFO was filed against Nonami Enterprises (Nonami Plantation) on November 3, 2003 and assessed a penalty of $24,750.

The violations alleged involve the misuse of Furadan 4F, a restricted-use pesticide, which was injected into chicken eggs. The eggs were then placed at strategic locations on the plantation property as bait for predators of wild Bobwhite quail and their eggs. Wildlife killed by the misuse included hawks, songbirds, vultures, alligators, opossums, raccoons, skunks, coyotes, butterflies and insects, among others. The plantations certified that any use of Furadan for predator control on their properties had ceased.

Previous criminal pleas had been filed in the U.S. District Court, Middle District of Georgia for misuse of a registered pesticide and "taking" (killing) a threatened species in the cases of Ecila Plantation, LLC, J. Wiley Jordan, John L. Simms, Richard Roger Thomas, and Fred Wenzel (former owner of Kolomoki Plantation). The Georgia Department of Agriculture had filed Orders of the Commissioner relating to the violations in the cases of B.F. Hodges, Bennett Supply Company (a restricted use pesticides dealer in GA), Ecila Plantation, L.L.C., Kolomoki Plantation, L.L.C., Nochaway Plantation, L.L.C., and Richard Thomas.

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Initial Health Care, Inc.

On July 15, 2003, the Consent Agreement and Final Order was filed with the Regional Hearing Clerk in the matter of Initial Health Care, Inc., a subsidiary of Rent-to-Kill. Rick Hayes, Georgia Department of Agriculture (GDA) Pesticide Inspector, investigated this Norcross, GA establishment in response to a competitor complaint to EPA Region 4. The company produced the Sanitact Disposal Unit, an unregistered pesticide, by mixing a registered antimicrobial product with water and an odor-control product. The mixture was then poured into covered plastic cans and placed in women's restrooms in business facilities. In addition to producing an unregistered, misbranded pesticide, EPA alleged the company produced pesticides in an unregistered establishment and used a registered pesticide in a manner inconsistent with its labeling. The company agreed to discontinue producing the product and paid a penalty of $14,080. Cheryn Jones was the Case Development Officer.

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Southern States Cooperative, Incorporated

On September 22, 2003, the Consent Agreement and Final Order was filed with the Regional Hearing Clerk in the matter of Southern States Cooperative, Incorporated, Cordele Fertilizer Plant, Cordele, GA. The action was the result of an inspection conducted by the North Carolina Department of Agriculture & Consumer Services' inspector Tim Dazey at Beacon Ridge Golf and Country Club in West End, North Carolina. Beacon Ridge received a shipment of "Southern States Herbicide Impregnated Fertilizer - Southern States Mini Fairway 22-5-10 w/ .75% Pendimethalin" which was a pesticide/fertilizer mixture blended and packaged at the Southern States facility in Cordele, GA. The blend was not delivered with a copy of the end-use labeling of each pesticide in the blend which is a requirement under the custom blending regulations. A pesticide/fertilizer blend which fails to meet the conditions of a custom blend set forth in the regulations would be a pesticide requiring registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). Southern States agreed to pay $3,080 for distribution of an unregistered pesticide and they reviewed their custom blending practices to ensure that the violation would not be repeated. Cheryl Prinster was the Case Development Officer.

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Sun Pine Corporation

The Mississippi Department of Agriculture, Bureau of Plant Industry, conducted a neutral scheme Producer Establishment Inspection at Sun-Pine Corporation in Canton, MS. Two products, both bathroom cleaning products, were collected as samples along with documentation of five shipments of each product. The case file was referred to Region 4 for evaluation and possible enforcement action. An Enforcement Case Review was requested from EPA's Antimicrobial Division. Both product labels were determined to make pesticidal claims. The claims made by one of the products were considered to be weakly pesticidal. A Show Cause letter was issued to Sun-Pine. Initially, ten counts of sale or distribution of an unregistered pesticide were proposed, carrying a penalty of $38,500. After negotiations in which financial information and good faith efforts were taken into consideration, the five counts against the weaker label claims were dropped, and a penalty of $15,400 was agreed upon. A Consent Agreement/Final Order was signed in February 2003. Mark Bean was the Case Development Officer.

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Customs Import Alerts on Illegal Pesticides

EPA's Toxics and Pesticides Enforcement Division made requests to the Bureau of Customs and Border Protection on July 1, 2003, and August 26, 2003, for the issuance of import alerts for shipments of unregistered Frontline & Advantage flea products and unregistered naphthalene-based pesticides. Several suppliers in Australia and England were identified as the sources of the illegal flea products. EPA Region 4 working with the Tennessee Department of Agriculture and the Florida Department of Agriculture & Consumer Services has been successful in identifying and stopping illegal shipments into the ports of Memphis and Miami during August, September and October. Nan Chung Chemical Company in Taiwan was identified as the source of supply for the illegal colored naphthalene balls. These balls strongly resemble candy and would pose a high risk of ingestion to children. While the naphthalene could enter the United States through any port, the only known importer of record is Ding Ho Company, Inc. of Philadelphia, PA. (Contact: Mark Bloeth (404) 562-9013)

PESTICIDE WORKER PROTECTION TIPS AND COMPLAINTS:

Departments of Agriculture Phone #s

AL-334-240-7242

FL-850-488-3314

GA-404-656-9371

KY-502-564-7274

MS-662-325-7763

NC-919-733-3356

Special Hotline #s

SC-1-800-209-1112

TN-1-800-628-2631

Introducing.....

Christine Cairns

Currently employed as a ***Life Scientist*** in the EPA Region 4 Pesticides Section under the Federal Career Intern Program. Recently earned an MS in Environmental Sciences from Florida International University (FIU) in Miami. While obtaining MS degree, worked as a Research Assistant for FIU's Community Tropical Ecosystem Management Project, a joint research/action project aimed at supporting integrated conservation and development in indigenous farming communities of the Yucatan region of Mexico.

From the Editor.....

SPECIAL THANKS TO:

Stephanie Thornton an EPA intern who contributed significantly to this edition by researching, writing, and editing articles.

To view an electronic version of *Alphabet Soup*, visit the Region 4 website at:

<http://www.epa.gov/pesticides/local/region4/news/index.htm>

Readers are encouraged to submit comments and suggestions to improve *Alphabet Soup*. To do so, please contact:

Lora Lee Schroeder, Editor
Air, Toxics, & Pesticides Division
US EPA Region 4
61 Forsyth Street
Atlanta, GA 30303-8960
schroeder.lora@epa.gov
phone: (404)562-9015